

**Table 19. Carbon Dioxide Emissions by Sector and Source
(million metric tons, unless otherwise noted)**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Residential													
Petroleum	105.6	104.0	104.2	109.2	109.8	110.7	110.8	111.0	110.5	110.4	110.2	110.3	109.7
Natural Gas	259.5	267.2	275.2	281.1	282.7	287.0	290.3	294.0	296.8	300.4	302.9	305.3	305.5
Coal	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.1
Electricity	790.8	816.7	826.9	820.5	834.6	851.0	869.2	884.2	893.9	905.3	915.2	928.6	935.0
Total	1157.0	1189.0	1207.5	1212.1	1228.3	1249.9	1271.5	1290.4	1302.3	1317.2	1329.4	1345.3	1351.3
Commercial													
Petroleum	52.9	52.6	60.9	61.5	62.8	63.5	64.4	65.0	65.5	66.2	66.6	67.1	67.6
Natural Gas	165.0	169.4	171.9	168.8	172.2	176.5	179.6	182.1	185.2	188.7	191.2	192.9	194.1
Coal	9.2	9.2	9.3	9.0	9.3	9.4	9.3	9.3	9.3	9.3	9.3	9.3	9.3
Electricity	787.4	778.0	782.5	790.1	820.1	848.8	876.4	897.7	918.2	938.4	957.6	977.6	995.9
Total	1014.5	1009.1	1024.5	1029.4	1064.4	1098.2	1129.8	1154.0	1178.2	1202.5	1224.8	1247.0	1266.9
Industrial 1/													
Petroleum	409.9	412.8	345.3	338.2	354.8	362.1	365.9	368.8	366.9	365.4	365.2	370.4	377.0
Natural Gas 2/	441.5	432.7	439.1	457.1	469.7	479.0	488.8	497.2	507.9	522.1	532.8	538.5	544.4
Coal	196.8	185.1	195.8	196.2	196.1	195.2	194.4	193.4	192.8	191.9	191.1	190.2	189.2
Electricity	634.1	640.0	630.7	632.1	652.0	669.3	685.8	694.7	702.0	710.3	719.6	730.2	740.2
Total	1682.3	1670.6	1610.8	1623.6	1672.7	1705.6	1734.9	1754.0	1769.5	1789.6	1808.8	1829.3	1850.9
Transportation													
Petroleum 3/	1789.7	1811.2	1848.9	1909.7	1968.5	2018.1	2061.0	2104.5	2147.6	2193.2	2237.1	2282.7	2329.1
Natural Gas 4/	33.9	35.2	36.9	36.6	36.9	37.0	37.4	38.0	38.5	39.5	40.3	41.1	41.7
Other 5/	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	14.2	14.2	14.6	14.7	15.1	15.5	15.9	16.2	16.4	16.7	17.0	17.3	17.5
Total	1837.8	1860.6	1900.4	1960.9	2020.5	2070.6	2114.4	2158.7	2202.6	2249.5	2294.4	2341.1	2388.3
Total by Delivered Fuel													
Petroleum 3/	2358.2	2380.5	2359.3	2418.6	2495.8	2554.4	2602.2	2649.3	2690.5	2735.2	2779.2	2830.6	2883.4
Natural Gas	899.9	904.4	923.1	943.6	961.5	979.5	996.2	1011.3	1028.3	1050.7	1067.2	1077.8	1085.7
Coal	207.1	195.4	206.3	206.4	206.6	205.8	204.9	203.9	203.2	202.4	201.6	200.6	199.7
Other 5/	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	2226.6	2249.0	2254.6	2257.4	2321.9	2384.7	2447.3	2492.7	2530.6	2570.6	2609.4	2653.8	2688.6
Total	5691.7	5729.3	5743.3	5826.0	5985.9	6124.4	6250.5	6357.2	6452.7	6558.8	6657.4	6762.7	6857.3
Electric Power Sector 6/													
Petroleum	99.6	72.2	77.6	41.9	50.4	49.8	52.0	57.0	54.4	51.0	55.4	63.7	68.4
Natural Gas	289.1	299.1	267.3	305.0	306.7	316.0	323.7	342.3	342.0	358.5	372.3	386.6	397.0
Coal	1838.0	1877.8	1909.7	1910.4	1964.8	2019.0	2071.6	2093.5	2134.1	2161.2	2181.7	2203.5	2223.2
Total	2226.6	2249.0	2254.6	2257.4	2321.9	2384.7	2447.3	2492.7	2530.6	2570.6	2609.4	2653.8	2688.6
Total by Primary Fuel 7/													
Petroleum 3/	2457.7	2452.7	2436.9	2460.5	2546.3	2604.2	2654.1	2706.2	2744.9	2786.1	2834.6	2894.3	2951.8
Natural Gas	1189.0	1203.4	1190.3	1248.6	1268.2	1295.4	1319.9	1353.6	1370.4	1409.2	1439.5	1464.4	1482.6
Coal	2045.0	2073.2	2116.0	2116.8	2171.4	2224.8	2276.5	2297.3	2337.3	2363.6	2383.3	2404.1	2422.9
Other 5/	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	5691.7	5729.3	5743.3	5826.0	5985.9	6124.4	6250.5	6357.2	6452.7	6558.8	6657.4	6762.7	6857.3
Carbon Dioxide Emissions (tons per person)													
	19.9	19.8	19.7	19.8	20.2	20.5	20.7	20.9	21.0	21.2	21.4	21.5	21.6

**Table 19. Carbon Dioxide Emissions by Sector and Source
(million metric tons, unless otherwise noted)**

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Residential													
Petroleum	109.4	109.1	108.9	108.2	107.8	107.4	107.1	106.4	105.9	105.5	105.3	104.5	0.0%
Natural Gas	306.8	308.1	310.8	312.2	314.8	317.7	321.2	321.9	323.7	326.0	329.2	330.7	0.9%
Coal	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	-0.3%
Electricity	943.9	954.0	968.2	977.9	988.1	1003.1	1019.9	1032.2	1051.3	1073.1	1091.8	1106.7	1.3%
Total	1361.2	1372.3	1389.0	1399.4	1411.7	1429.3	1449.2	1461.6	1482.0	1505.7	1527.3	1543.0	1.1%
Commercial													
Petroleum	68.1	68.6	69.0	69.3	69.6	69.9	70.2	70.7	71.0	71.5	71.9	72.2	1.4%
Natural Gas	195.3	196.5	198.2	200.2	202.6	205.4	207.9	209.7	211.6	214.0	216.5	219.4	1.1%
Coal	9.3	9.3	9.3	9.3	9.3	9.2	9.2	9.2	9.2	9.2	9.2	9.2	0.0%
Electricity	1012.9	1030.1	1048.7	1069.1	1088.3	1112.5	1135.5	1160.1	1187.1	1216.9	1240.9	1269.2	2.2%
Total	1285.6	1304.4	1325.2	1347.9	1369.7	1397.0	1422.9	1449.8	1479.0	1511.6	1538.5	1570.1	1.9%
Industrial 1/													
Petroleum	383.3	388.2	391.6	395.2	399.2	404.0	408.0	413.1	417.8	421.4	424.9	428.4	0.2%
Natural Gas 2/	548.1	552.2	558.8	567.8	579.9	590.7	598.6	602.5	609.7	619.9	629.7	639.4	1.7%
Coal	188.3	187.1	186.2	185.4	185.0	183.9	183.3	182.3	182.0	181.6	181.2	181.1	-0.1%
Electricity	748.2	757.4	769.2	781.9	791.8	802.1	813.8	826.5	844.6	865.2	880.9	900.7	1.5%
Total	1868.0	1885.0	1905.8	1930.4	1956.0	1980.8	2003.6	2024.5	2054.0	2088.1	2116.7	2149.5	1.1%
Transportation													
Petroleum 3/	2369.6	2406.2	2442.2	2479.8	2517.6	2553.8	2590.9	2629.0	2669.5	2712.3	2757.1	2805.8	1.9%
Natural Gas 4/	41.9	42.4	42.3	43.0	45.8	48.5	49.1	49.1	49.0	49.8	50.8	51.3	1.7%
Other 5/	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Electricity	17.8	18.1	18.4	18.8	19.1	19.5	19.9	20.4	20.9	21.5	21.9	22.4	2.0%
Total	2429.3	2466.7	2503.0	2541.5	2582.5	2621.7	2659.9	2698.5	2739.4	2783.5	2829.8	2879.5	1.9%
Total by Delivered Fuel													
Petroleum 3/	2930.5	2972.0	3011.7	3052.5	3094.3	3135.1	3176.2	3219.2	3264.3	3310.6	3359.1	3410.9	1.6%
Natural Gas	1092.1	1099.2	1110.1	1123.2	1143.1	1162.2	1176.8	1183.2	1194.0	1209.6	1226.2	1240.8	1.4%
Coal	198.7	197.5	196.5	195.8	195.4	194.3	193.6	192.7	192.3	191.9	191.5	191.4	-0.1%
Other 5/	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Electricity	2722.8	2759.6	2804.6	2847.7	2887.2	2937.3	2989.0	3039.2	3103.8	3176.7	3235.5	3299.0	1.7%
Total	6944.1	7028.4	7123.0	7219.2	7320.0	7428.8	7535.6	7634.2	7754.5	7888.9	8012.3	8142.0	1.5%
Electric Power Sector 6/													
Petroleum	73.6	78.6	77.9	76.8	71.7	68.0	65.2	68.4	65.1	60.4	62.4	61.6	-0.7%
Natural Gas	405.8	410.9	426.2	437.0	453.7	462.0	463.3	455.3	451.6	445.1	453.8	451.6	1.8%
Coal	2243.4	2270.2	2300.5	2333.9	2361.8	2407.3	2460.5	2515.5	2587.1	2671.2	2719.4	2785.8	1.7%
Total	2722.8	2759.6	2804.6	2847.7	2887.2	2937.3	2989.0	3039.2	3103.8	3176.7	3235.5	3299.0	1.7%
Total by Primary Fuel 7/													
Petroleum 3/	3004.1	3050.6	3089.6	3129.3	3166.0	3203.0	3241.4	3287.5	3329.4	3371.0	3421.5	3472.5	1.5%
Natural Gas	1497.9	1510.1	1536.4	1560.2	1596.8	1624.2	1640.1	1638.5	1645.6	1654.7	1680.0	1692.4	1.5%
Coal	2442.2	2467.7	2497.0	2529.7	2557.2	2601.6	2654.1	2708.1	2779.4	2863.2	2910.8	2977.1	1.6%
Other 5/	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Total	6944.1	7028.4	7123.0	7219.2	7320.0	7428.8	7535.6	7634.2	7754.5	7888.9	8012.3	8142.0	1.5%
Carbon Dioxide Emissions (tons per person)													
	21.7	21.8	22.0	22.1	22.2	22.4	22.5	22.6	22.8	23.0	23.2	23.4	0.7%

**Table 19. Carbon Dioxide Emissions by Sector and Source
(million metric tons, unless otherwise noted)**

1/ Fuel consumption includes energy for combined heat, electricity and heat, to the public.

2/ Includes lease and plant fuel.

3/ This includes international bunker fuel, which by the years from 1990 through 2000, international bunker fuels accounted for 24 to 30

4/ Includes pipeline fuel natural gas and compressed

5/ Includes methanol and liquid hydrogen.

6/ Includes electricity-only and combined heat and power to the public. Does not include emissions from the nonbiogenic component of municipal energy.

7/ Emissions from the electric power sector are distributed

N/A = Not applicable.

Note: Totals may not equal sum of components due to rounding from official EIA data reports.

Sources: 2001 and 2002 emissions and emission trends United States 2002, DOE/EIA-0573(2002) (Washington, DC, October 2003).